The invention is based on the finding that a small and defined amount of recurring oxyethylene recurring units (1.5 to 2.5 mol%) in the chain of linear polyoxymethylene copolymers results in products possessing low formaldehyde emission tendency combined with high level of mechanical properties. See page 3, lines 10-14 of the specification.

The behavior is shown in table 1 at page 8 of the specification. Thus, when comparing the Examples with the Comparative Examples one can see that low amounts of oxyethylene units present in the copolymer result in high formaldehyde emission (Comparative Examples 2, 3, 5 and 6 versus Examples 1, 2, 3 and 4; pairs of copolymers with same or similar melt index) and that high amounts of oxyethylene units present in the copolymer result in low formaldehyde emission but in reduced mechanical properties, expressed in terms of modulus of elasticity, yield stress and notched impact strength (Comparative Examples 1 and 4 versus Examples 1 and 3; pairs of copolymers with same or similar melt index).

In the prosecution there have been cited several documents disclosing copolymers possessing oxymethylene units and oxyethylene units. But the range of oxyethylene units disclosed is much broader (0.1 - 15 or even 0.1 - 50 mol %) encompassing both the claimed range and the range of oxyethylene units of the Comparative Examples of the instant specification. There is no explicit disclosure in said references of a POM copolymer possessing oxyethylene units in the claimed range. The Examiner's position is that the claimed copolymers are known from the prior art and that the properties are inherent in the composition.

Walling describes different polymers and also talks about stability, but as in the other references, the stability is determined by a different test from VDA 275 which does not allow a conclusion about the formaldehyde emission of shaped articles manufactured from the polymers described by Walling. Walling determines the stability by weight loss determination at a temperature of 225°C for 120 minutes (Walling, column 4, lines 1 to 4). Walling is also silent on the mechanical properties, and on the manner of producing a copolymer with the properties according to the invention herein.

Walker relates to a thermal after treatment with a chemical stabilizer for the purpose of stabilizing the granules obtained, but not the shaped articles produced therefrom. The improved stability is caused by the specific thermal after treatment and the chemical stabilizer, but not the comonomer content. It is not disclosed, and not likely, that shaped articles molded from the granules made according to Walker will have a comparably low emission as molded articles produced according to the invention. Moreover, the stabilization of Walker relates to a more **stable** copolymer on processing, but does not teach or suggest a low formaldehyde emission of shaped articles, which is after processing. This conclusion can be drawn from the manner in which Walker determines the stability: it is determined by the amount of weight loss by working the polymer on rolls at a temperature of 176°C (see Walker, column 5, line 72 to column 6, line 5). According to the present invention, the formaldehyde emission is determined according to VDA 275, which is carried out by heating a shaped article in a closed container together with a liquid to 80°C and titrating the formaldehyde absorbed by the liquid. Therefore, a person skilled in the art could not derive the present

invention from Walker, because the tests carried out by Walker do not allow a judgment as to whether or not products thereof have a low formaldehyde emission.

Kakos generally discloses copolymers having 0.1 to 15 mol % comonomer content, (Kakos, column 5, lines 16-17). The improved stability is achieved by the addition of a stabilizing additive (Kakos, column 8). Kakos mentions "stabilizing" a polyoxymethylene, but is silent on the formaldehyde emission and the mechanical properties. Similarly as with Walker, Kakos determines the stability of the polymer at a high temperature, 230°C, as described in column 12, line 19 to 26. Also this test does not allow an extrapolation of the formaldehyde emission of a shaped article according to VDA 275. Accordingly, Kakos neither teaches nor suggests the present invention as claimed.

For the reasons mentioned above, the references cited by the Examiner do not disclose or suggest the present invention, either alone or in combination. Particularly, all of the references discuss the term stability, which is fundamentally different from formaldehyde emission as can be seen from the tests employed for determining stability. The references do not teach how to link the parameters of formaldehyde emission, melt flow index, all the mechanical properties described in the invention and embraced by the claim to enable a person skilled in the art to produce shaped articles according to the invention.

Accordingly, in the absence of additional prior art of increased pertinency, it is believed that independent claim 13 is directed to patentable subject matter and Notice to that effect is respectfully requested.

Respectfully submitted,

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